

200314628

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Patent Claims

1. A device for retaining a fuel pump in a fuel container of a motor vehicle, with a pump holder, with first retaining means of the pump holder, provided for supporting on a fixed component, in particular a baffle pot, and with second retaining means of the pump holder, provided for supporting the fuel pump, and with a damping device connecting the first and the second retaining means to one another, the retaining means being manufactured from plastic, the first retaining means, the second retaining means and the damping device being manufactured as a single piece, in that the damping device has arms which are angled away from each other, and in that during a movement of the fuel pump the arms are subject to a torsional and/or bending load, characterized in that the damping device (22) has at least one first vertical arm (13) and at least one first horizontal arm (14) angled away from the first vertical arm (13), and in that the first and/or the second horizontal arm (14, 16) is/are designed as an annular element (12).

2. The device as claimed in claim 1, characterized in that a second vertical arm (15) is arranged between the first horizontal arm (14) and a second horizontal arm (16), which is connected to the second retaining means (11).

3. The device as claimed in at least one of the preceding claims, characterized in that the first retaining means (10) are designed such that they are supported radially on the

inside of the baffle pot (3) and such that they rest axially.

4. The device as claimed in at least one of the preceding claims, characterized in that the second retaining means (11) have a pipe length (17) surrounding the fuel pump (4).

5. The device as claimed in at least one of the preceding claims, characterized in that the second retaining means (11) have latching hooks (19), arranged on the pipe length (17), for retaining the fuel pump (4).

6. The device as claimed in at least one of the preceding claims, characterized in that the first vertical arm (13) has a radially inwardly pointing hook (20), and in that the hook (20) limits the vertical movement of the second retaining means (11).

7. The device as claimed in at least one of the preceding claims, characterized in that an annular element (12) connected to the first retaining means (10) has a radially inwardly pointing supporting element (21) situated opposite the pipe length (17) at a designated distance.

8. The device as claimed in at least one of the preceding claims, characterized in that the single-piece component comprising first and second retaining means (10, 11) and the damping device is manufactured from plastic by injection molding.

9. The device as claimed in at least one of the preceding claims, characterized in that the fuel pump (4) has an annular, elastomeric sealing element (6) for the annular sealing of an opening (9) arranged in the bottom region of the baffle pot (3).

10. The device as claimed in at least one of the preceding claims, characterized in that the sealing element (6) has an obliquely angled sealing lip (7), and in that the free end of the sealing lip (7) rests on the bottom of the baffle pot (3).

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New patent claim 1

1. A device for retaining a fuel pump in a fuel container of a motor vehicle, with a pump holder, with first retaining means of the pump holder, provided for supporting on a fixed component, in particular a baffle pot, and with second retaining means of the pump holder, provided for supporting the fuel pump, and with a damping device connecting the first and the second retaining means to one another, the retaining means being manufactured from plastic, the first retaining means, the second retaining means and the damping device being manufactured as a single piece, in that the damping device has arms which are angled away from each other, and in that during a movement of the fuel pump the arms are subject to a torsional and/or bending load, characterized in that the damping device (22) has at least one first vertical arm (13) and at least one first horizontal arm (14) angled away from the first vertical arm (13), and in that the first and/or the second horizontal arm (14, 16) is/are designed as an annular element (12).

Patent Claims

1. A device for retaining a fuel pump in a fuel container of a motor vehicle, with a pump holder, with first retaining means of the pump holder, provided for supporting on a fixed component, in particular a baffle pot, and with second retaining means of the pump holder, provided for supporting the fuel pump, and with a damping device connecting the first and the second retaining means to one another, the retaining means being manufactured from plastic, characterized in that the first retaining means (10), the second retaining means (11) and the damping device (22) are manufactured as a single piece.
2. The device as claimed in claim 1, characterized in that the damping device (22) has arms (13-16) which are angled away from each other, and in that during a movement of the fuel pump (4) the arms (13-16) are subject to a torsional and/or bending load.
3. The device as claimed in claim 1 or 2, characterized in that the damping device (22) has at least one first vertical arm (13) and at least one first horizontal arm (14) angled away from the first vertical arm (13).
4. The device as claimed in at least one of the preceding claims, characterized in that a second vertical arm (15) is arranged between the first horizontal arm (14) and a second horizontal arm (16), which is connected to the second retaining means (11).

5. The device as claimed in at least one of the preceding claims, characterized in that the first and/or the second horizontal arm (14, 16) is/are designed as an annular element (12).

6. The device as claimed in at least one of the preceding claims, characterized in that the first retaining means (10) are designed such that they are supported radially on the inside of the baffle pot (3) and such that they rest axially.

7. The device as claimed in at least one of the preceding claims, characterized in that the second retaining means (11) have a pipe length (17) surrounding the fuel pump (4).

8. The device as claimed in at least one of the preceding claims, characterized in that the second retaining means (11) have latching hooks (19), arranged on the pipe length (17), for retaining the fuel pump (4).

9. The device as claimed in at least one of the preceding claims, characterized in that the first vertical arm (13) has a radially inwardly pointing hook (20), and in that the hook (20) limits the vertical movement of the second retaining means (11).

10. The device as claimed in at least one of the preceding claims, characterized in that an annular element (12) connected to the first retaining means (10) has a radially inwardly pointing supporting element (21) situated opposite the pipe length (17) at a designated distance.

11. The device as claimed in at least one of the preceding claims, characterized in that the single-piece component comprising first and second retaining means (10, 11) and the damping device is manufactured from plastic by injection molding.

12. The device as claimed in at least one of the preceding claims, characterized in that the fuel pump (4) has an annular, elastomeric sealing element (6) for the annular sealing of an opening (9) arranged in the bottom region of the baffle pot (3).

13. The device as claimed in at least one of the preceding claims, characterized in that the sealing element (6) has an obliquely angled sealing lip (7), and in that the free end of the sealing lip (7) rests on the bottom of the baffle pot (3).